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PTOL-90A (Rev. 04/07)

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/723,776
Filing Date: November 26, 2003
Appellant(s): VANEPPS ET AL.

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Technology Center 2600

D. Scott Moore
<u>For Appellant</u>

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/13/2007 appealing from the Office action

mailed 2/23/2007.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,246,761	CUDDY	6-2001
6,134,455	CORKUM	10-2000
2005/0278165	BOILLOT ET AL	12-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1, 7, 8, 10, 14, 15, 17, 23-25, 31, 32 & 38 are rejected under 35

U.S.C. 102(b) as being clearly anticipated by Cuddy (US 6,246,761).

Regarding claims 1, 17, 25 & 32, Cuddy teaches a method of operating an

electronic device & electronic device & computer readable storage medium comprising

receiving a noise signal (Column 4, Lines 66 & 67), generating a sound metric for the

noise signal by performing a Fourier transform on the noise signal to obtain a frequency

domain representation of the noise signal, wherein the sound metric is a loudness

profile, the loudness profile being read as the characteristics of the incoming ambient

noise signal (Column 4, Lines 64-67; Column 5, Lines 40-46; Column 7, Lines 10-13)

and generating an alert signal having a spectral composition based on the sound metric

(Column 5, Lines 46-57). Furthermore the Examiner wishes to notes that these devices

and or means are housed within the DSP item 24 of figure 4 of Cuddy.

Regarding claims 7 & 23, Cuddy teaches the method of claim 1 and device of

claim 17 wherein the sound metric comprises a loudness profile and sharpness profile

(Column 5, Lines 40-45). The examiner is interpreting amplitude to be analogous to the claimed 'sharpness'.

Regarding claim 8, Cuddy teaches the method of claim 1 further comprising receiving an incoming communication and or scheduled event at the electronic device and wherein receiving the noise signal comprises receiving the noise signal responsive to receiving the incoming communication (Column 7, Lines 54-65).

Regarding claims 10 & 24, Cuddy teaches the method of claim 1 and device of claim 17 wherein the electronic device is a mobile terminal (Column 2, Lines 36-40).

Regarding claim 14, Cuddy teaches a method of operating an electronic device comprising providing a plurality of alert profiles at least one of the plurality of alert profiles having a different spectral composition than other ones of the plurality of alert profiles (Column 5, Lines 50-54; Column 7, Lines 30-35), receiving a noise signal (Column 2, Lines 38-47), selecting one of the plurality of alert profiles responsive to receiving the noise signal (Column 5, Lines 40-49) and generating an alert signal that is based on the selected one of the plurality of profiles (Column 6, Lines 1-4).

Regarding claim 15, Cuddy teaches the method of claim 14 wherein generating the alert signal comprises generating the alert signal having a spectral composition that is based on the selected one of the plurality of alert profiles (Column 5, Lines 40-57; Column 7, Lines 30-35).

Regarding claims 31 & 38, Cuddy teaches an electronic device comprising a means for providing a plurality of previously generated alert profiles, at least one of the plurality of alert profiles having a different spectral composition than other ones of the

plurality of alert profiles (Column 5, Lines 49-57; Column 7, Lines 30-35), means for

receiving a noise signal (Column 2, Lines 38-40), means for selecting one of the

plurality of alert profiles responsive to receiving the noise signal and means for

generating an alert signal that is based on the selected one of the plurality of alert

profiles (Column 5, Lines 40-57; Column 6, Lines 1-4). It is further noted by the

Examiner that these values are determined empirically from field tests and therefor read

as 'previously generated' profiles. Furthermore it is noted by the Examiner that the

computer readable storage medium format of claim 38 reads analogous to the device of

claim 31 and is similarly.rejected.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 4, 20, 28 & 35 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Cuddy in view of Boillot et al (US 2005/0278165), hereinafter Boillot.

Regarding claims 4, 20, 28 & 35, Cuddy teaches the method of claim 1 and

devices of claims 17 & 25 and the computer readable medium of claim 32, however

Cuddy fails to teach calculating a distribution of sones/bark versus bark for the

frequency domain representation of the noise signal using an ISO 532B loudness

calculation method and determining an overall loudness for the noise signal and a

loudness in at least one critical band for the noise signal based on the distribution of

sones/bark versus bark, the loudness profile comprising the overall loudness of the

noise signal and the loudness in at least one critical band. Boillot teaches calculating a

distribution of sones/bark versus bark for the frequency domain representation of the

noise signal using an ISO 532B loudness calculation method (Page 4, [0050]; Boillot)

and determining an overall loudness for the noise signal and a loudness in at least one

critical band for the noise signal based on the distribution of sones/bark versus bark, the

loudness profile comprising the overall loudness of the noise signal and the loudness in

at least one critical band (Page 2, [0032], Page 3, [0038-0039], Page 4, [0050]; Figure

4; Boillot). Therefore it would have been obvious to one of ordinary skill in the art to

incorporate an ISO 532B loudness calculation method and device to determine an

overall loudness for a noise signal as taught by Boillot in order to accurately calculate

the spread of signal excitation to better analyze the loudness and frequency

characteristics of a noise signal. Furthermore the Examiner wishes to note that these

devices and or means are housed within the DSP item 24 of figure 4 of Cuddy.

5.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cuddy.

        Regarding claim 9 Cuddy teaches the method of claim 1, Cuddy also teaches

that in a reflective embodiment that it would be useful to receive an incoming call after

receiving the noise signal and generating the sound metric for the noise signal wherein

generating the alert signal has a spectral composition based on the sound measure

responsive to receiving the incoming call (Column 8, Lines 44-54). Therefore it would

have been obvious to modify Cuddy to constantly update ring parameters, in response

to the environment the device found itself in, before a call was received.

6.   Claims 11, 12, 30 & 37 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Cuddy in view of Corkum (6,134,455).

Regarding claims 11, 30 & 37, Cuddy teaches providing a plurality of alert

profiles each of the alert profiles being generated to have a spectral composition based

on a noise signal sound metric associated with an ambient noise environment (Column

5, Lines 40-49; Cuddy), selecting one of the plurality of alert profiles (Column 5, Lines

49-59; Cuddy), generating an alert signal that is based on the selected one of the

plurality of alert profiles (Column 6, Lines 1-4; Cuddy). However Cuddy does not teach

receiving a user selection for a particular alert profile. Corkum teaches receiving a user

selection for a particular alert profile (Column 6, Lines 48-55; Corkum). Therefore it

would have been obvious to add a user input into Cuddy such as that taught by Corkum

in order to allow a user to tell the device whether it was in a muffling vs. a reflective

environment. Furthermore it is noted by the Examiner that the computer readable

storage medium format of claim 37 reads analogous to the device of claim 30 and is

similarly rejected.

Regarding claim 12, Cuddy and Corkum teach the method of claim 11,

furthermore Cuddy teaches wherein generating the alert signal comprises generating

the alert signal having a spectral composition that is based on the selected one of the

plurality of alert profiles (Column 5, Lines 50-57; Cuddy).

(10) Response to Argument

Regarding claims 1, 7, 8, 10, 17, 23-25 & 32, the appellant contends that Cuddy fails to teach that the sound metric generated for the noise signal is a loudness profile. However loudness is inextricably linked to relativity. Put another way, for a sound to be considered 'louder' than another that infers that one sound was heard more than the other. The Cuddy reference teaches that in order to overpower, or to make louder, an alert signal generator must calculate "an initial set of audible characteristics necessary ***for ringing tones to be heard by the user over the ambient noise***" (Column 5, Lines 46-49; Cuddy). This initial set of audible characteristics is being read as the loudness profile as it provides for an alert signal louder than the perceived ambient sampled/measured noise. Cuddy teaches that there are many ways in order to provide for a 'louder' signal by altering a combination of the amplitude, frequency or cadence of an alert signal (Column 5, Lines 10-17; Cuddy). While the appellant wishes to define the term loudness in terms the human ear's perception of a sound, the claim language does not require this and when the claims are taken in their broadest possible interpretation the Cuddy reference clearly teaches what is claimed; in part, sampling a sound and from that sound generating an alert which is capable of being heard, therefore 'louder' than the sample. Therefore claims 1, 17, 25 & 36 are rejected in view of Cuddy and that dependent claims 4-10, 20-24, 28, 29, 35, 36 should remain rejected for the grounds stated herein.

Regarding claims 15, 15, 31, 38, the appellant contends that Cuddy fails to teach that at least one of the alert profiles has a different spectral composition than other ones of the alert profiles. However Cuddy explicitly teaches that a look-up table may be utilized incorporating records relating to different possible ranges of amplitude and frequency characteristics, the spectral compositions (Column 5, Lines 50-57; Cuddy). In other words, Cuddy teaches that based on various sampled acoustic signals a DSP may consult a memory with a list of known alert profiles, or amplitude and frequency characteristic sets. Furthermore Cuddy teaches different ring tones, that is ones that need to have different spectral compositions to achieve Cuddy's purpose of having users made aware of an alert signal (Column 2, Lines 38-47; Cuddy). Accordingly, claims 14-16, 31 & 38 should remain rejected for the grounds stated herein.

Regarding claims 4, 20, 28 & 35, the appellant contends that in view of their arguments regarding independent claims 1, 17, 25 & 32, claims 4, 20, 28 & 35, which depend from those independent claims, should also be deemed allowable. However in view of the forgoing arguments regarding the independent claims the examiner respectfully requests that the rejections be maintained.

Regarding claim 9, the appellant contends that in view of their arguments regarding independent claim 1, claim 9, which depends from the independent claim, should also be deemed allowable. However in view of the forgoing arguments regarding the independent claim the examiner respectfully requests that the rejections be maintained.

Regarding claims 11, 12, 30 & 37, the appellant contends that Cuddy fails to teach a plurality of alert profiles. However Cuddy explicitly teaches that a look-up table may be utilized incorporating *records*, that is more than one type of alert record, relating to different possible ranges of amplitude and frequency characteristics, the spectral compositions (Column 5, Lines 50-57; Cuddy). The examiner has taken the suggestion from the Corkum reference that a user may wish to override an alert signal generation means as a way for a user to select an alert profile, either one or automatic generating means, or one of a standard variety as outlined in the background of Cuddy (Column 1, Lines 29-42; Cuddy). In fact by using the Corkum reference to teach a means to stop the automatic ring alert generating function of Cuddy, the user changes the alerts spectral characteristics back to that of a default ring tone (Column 6, Lines 48-58; Corkum). Therefore for the foregoing reasons the examiner respectfully submits that the independent claims 11, 30 & 37 remain rejected over the Cuddy and Corkum art and that dependent claims 12, and 13 are rejected for the reasons set forth herein.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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9/25/2007

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